

WHAT IS CLAIMED IS:

1. An appliance for the preparation of hot drinks, the appliance comprising;
 - a drink preparation chamber in which hot water is combined with another substance to prepare a hot beverage; and
 - a water supply conduit having an outlet exposed to atmospheric pressure and arranged to dispense hot water into the drink preparation chamber, the water supply conduit including;
 - a riser through which water flows toward the outlet;
 - a heater extending along at least a portion of the riser and heating water in the riser; and
 - a conduit pressure control chamber open to atmospheric pressure and in hydraulic communication with a lower end of the riser such that water in the riser that is maintained during heating at a water level between the heater and an upper end of the riser and substantially equal to a static water level in the pressure control chamber.
2. The appliance of claim 1 wherein the pressure control chamber further comprises an overflow chamber at a level corresponding to the level of water in the riser that is between the heater and the outlet.
3. The appliance of claim 1 wherein the pressure control chamber further comprises a pressure sensor gauge responsive to static water pressure in the water supply conduit.
4. The appliance of claim 1 further comprising an optical sensor responsive to water level in the pressure control chamber.
5. The appliance of claim 1 further comprising a check valve preventing backflow from the riser into the pressure control chamber.
6. The appliance of claim 1 wherein the water supply conduit further comprises a water supply chamber in fluid communication with the pressure control chamber and

containing a quantity of water for replenishing the water supply conduit to replace dispensed hot water.

- 5 7 The appliance of claim 6 further comprising a pump hydraulically disposed between the water supply chamber and the pressure control chamber.
8. The appliance of claim 6 wherein the water supply chamber has a water outlet extending downward into the pressure control chamber.
9. The appliance of claim 8 wherein the water outlet includes a valve that is controlled by a sensor responsive to water level in the pressure control chamber.
10. The appliance of claim 9 wherein the sensor is an optical sensor.
11. The appliance of claim 9 wherein the sensor is a pressure gauge.
12. The appliance of claim 9 wherein the water outlet includes a float valve outlet and the sensor is a float sensor.
13. The appliance of claim 6 further comprising a filter positioned between the water supply chamber and the pressure control chamber.
14. The appliance of claim 1 further comprising a spring positioned below the pressure control chamber, wherein the spring expands to provide a substantially constant static water level in the pressure control chamber as the amount of water in the pressure control chamber diminishes.
15. The appliance of claim 1 wherein the riser extends in a substantially vertical direction.
16. The appliance of claim 1 wherein the riser extends at an angle inclined to vertical.

17. The appliance of claim 1 wherein the heater extends substantially over the length of the riser.
18. The appliance of claim 18 wherein the heater is a heating rod.
19. The appliance of claim 18 wherein the heating rod is coiled about the riser.
20. The appliance of claim 23 wherein the heating rod extends along an outer wall of the riser.
21. The appliance of claim 1 wherein the heater surrounds the riser.
22. The appliance of claim 1 wherein the riser has its greatest cross-sectional area in the portion along which the heater extends.
23. The appliance of claim 1 further comprising a sensor responsive to water level in the riser.
24. The appliance of claim 23 wherein the sensor responsive to water level further comprises a controller that disables the heater when the water level in the riser falls below a predetermined level.
25. An appliance for the preparation of hot drinks, the appliance comprising;
 - a drink preparation chamber in which hot water is combined with another substance to prepare a hot beverage; and
 - a water supply conduit having an outlet exposed to atmospheric pressure and arranged to dispense hot water into the drink preparation chamber, the water supply conduit including;
 - a riser through which water flows toward the outlet;
 - a heater extending along at least a portion of the riser and heating water in the riser; and

means for maintaining a substantially constant water level in the riser between the heater and the outlet.